



W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries

# Work Order ID 85026

**\*85026\***

Page 2

Item ID: D3319-1

Accept

**\*N900040100\***

Setup Start **\*NS1\***

Revision ID:

Item Name: Wearplate

Stop **\*NS2\***

Start Date: 31/05/2012 Start Qty: 10.00

**\*10\***

Cust Item ID:

Required Date: 14/06/2012 Req'd Qty: 10.00

**\*10\***

Customer:

Reference:

Approvals: Process Plan:

Date:

Tooling:

Date:

Run Start **\*NR1\***

QC:

Date:

SPC (Y/N):

Date:

Stop **\*NR2\***

Sequence ID/  
Work Center ID

Operation  
Description

Set Up/  
Run Hours

Tool ID

Tool #

Plan  
Code

Accept  
Qty

Reject  
Qty

Reject  
Number

Insp.  
Stamp

140

**\*140\***

Brake NC

NC BRAKE

0.00

Memo

0.00

Brake NC

1- Form using DT8326 & DT8261 as per Dwg D3319Rev: C  
2- Form flat on press using DT8776 block

12

12/06/09

150

**\*150\***

QC

Quality Control

QC6- Inspect dimensions to drawing

0.00

Memo

0.00

12/06/09

42

160

**\*160\***

Large Fab

Large Fab

Weld per dwg A/R Hardcoat steel Batch: ML21603  
Large Fab

0.00

Memo

1- Layout weld location as per Dwg D3319 using jig D3319-IT3  
2- Weld hard surface using DT8755 per QSI 004 and Dwg D3319 Rev: C  
Qty Part Number Description Batch  
A/R N/A 228/7560 Hardcoat Rod ML21603

X11

41 MAL

12/07/12

Pho →

W/O: 85026 85026


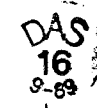


## WORK ORDER CHANGES

DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: D3319-1 PAR #: \_\_\_\_\_ Fault Category: Large Prob. / welding NCR: Yes No DQA: OK Date: 12/07/19  
 Resolution: Scrap Disposition: Scrap QA: N/C Closed: OK Date: 12/7/19

NCR: 121589

## WORK ORDER NON-CONFORMANCE (NCR) 5193

DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			
12/07/12	#160	Qty x1 Plate SCRAP when welder was grinded burn through it wasn't noticed that he was grinding	 057042 12/07/13	- SCRAP + Destroy Qty x1 no further	MAL 12/07/13	 12/07/13	 12/07/13 057042	 12/07/13
		if a hole torn R.L. Lock of strain in grinding parts.						

NOTE: Date &amp; initial all entries

# Work Order ID 85026

\*85026\*

Page 3

May-31-12 1:08:25 PM

Item ID: D3319-1

Accept

\*N900040100\*

Setup Start \*NS1\*

Revision ID:

Stop \*NS2\*

Item Name: Wearplate

Start Date: 31/05/2012 Start Qty: 10.00

\*10\*

Cust Item ID:

Required Date: 14/06/2012 Req'd Qty: 10.00

\*10\*

Customer:

Reference:

Approvals: Process Plan:

Date:

Tooling:

Date:

Run Start \*NR1\*

QC:

Date:

SPC (Y/N):

Date:

Stop \*NR2\*

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
--------------------------------	--------------------------	----------------------	---------	--------	--------------	---------------	---------------	------------------	----------------

170 QC10- Inspect visual per QSI004- ground welds

0.00



12/07/13

\*170\*

QC

Memo

0.00

Quality Control

(+6)

(+1)

180 QC5- Inspect part completeness to step on W/O

0.00



12/07/13

\*180\*

QC

Memo

0.00

Quality Control

(+6)

(+6)

190 Grey Sandtex(Ref:4.3.5.6) per QSI005 4.3

0.00

\*190\*

Powdercoat

Powder Coating

Memo

START TIME:

OVEN TEMPERATURE:

FINISH TIME:

8:30  
320 °F  
9:00

11X

MZ  
12/07/16

M12/279

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

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**NOTE:** Date & initial all entries

**Work Order ID 85026**

May-31-12 1:08:25 PM

**\*85026\***

Page 4

Item ID: D3319-1

Accept

**\*N900040100\***

Setup Start

**\*NS1\***

Revision ID:

Item Name: Wearplate

Stop

**\*NS2\***

Start Date: 31/05/2012 Start Qty: 10.00

**\*10\***

Cust Item ID:

Required Date: 14/06/2012 Req'd Qty: 10.00

**\*10\***

Customer:

Reference:

Approvals:

Process Plan:

Date:

Tooling:

Date:

Run Start

**\*NR1\***

QC:

Date:

SPC (Y/N):

Date:

Stop

**\*NR2\***Sequence ID/  
Work Center IDOperation  
DescriptionSet Up/  
Run Hours

Tool ID Tool #

Plan  
CodeAccept  
QtyReject  
QtyReject  
NumberInsp.  
Stamp

200

QC3- Inspect Part Finish

0.00

**\*200\***

QC

Memo

0.00

Quality Control

11x - f - 12-07-11

210

Identify as per dwg & Stock Location: **85026** 0.00

Packaging

**\*210\***

Packaging

Memo

0.00

Packaging

11x - 80  
12-7-16

220

QC21- Final Inspection - Work Order Release 0.00

**\*220\***

QC

Memo

0.00

Quality Control

12/7/17  
NF  
12-07-16

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

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			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries



# Picklist Print

May-31-12 1:08:30 PM

Page 1

Work Order ID: 85026

\*85026\*

Parent Item: D3319-1

\*D3319-1\*

Parent Item Name: Wearplate

Start Date: 31/05/2012

Required Date: 14/06/2012

Start Qty: 10.00

Required Qty: 10.00

Comments: IPP: B05.10.14Added step 9, dwg rev B KJ/EC  
IPP Rev:C Now on Waterjet 06-10-26 JLM

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
M1010S18GA		Purchased		No		100	sf	7.0960	0.628	6.610526			

\*M1010S18GA\*

1010/1025 SHEET .048

\*\*

Location

Loc Qty

Loc Code

MAT019

7.096

116268

3

117806

4.096

117806

Jm

12-6-7

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

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			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries

<b>DART AEROSPACE LTD</b>		<b>Work Order:</b> 85026
<b>Description:</b> Wearplate		<b>Part Number:</b> D3319-1
<b>Inspection Dwg:</b> D3319	<b>Rev:</b> C	<b>Page 1 of 1</b>

### FIRST ARTICLE INSPECTION CHECKLIST

Drawing Dimension	Tolerance	Actual Dimension	Accept	Reject	Method of Inspection	Comments
4.98	+/-0.030	4.983"	✓		✓	mm 01
1.600	+/-0.010	1.602"	✓		✓	
2.660	+/-0.010	2.665"	✓		✓	
3.190	+/-0.010	3.198"	✓		✓	
3.563	+/-0.010	3.563"	✓		✓	
4.71	+/-0.030	4.710"	✓		✓	
0.60	+/-0.030	0.601"	✓		✓	
10.576	+/-0.010	10.576"	✓		MT	H13-01
11.942	+/-0.010	11.942"	✓		MT	H13-01
18.09	+/-0.030	18.09"	✓		MT	
Ø0.316 x 0.546	+0.006/-0.001 x +/-0.010	0.316" x 0.546"	✓		✓	mm 01
Ø0.316 x 0.670	+0.006/-0.001 x +/-0.010	0.316" x 0.673"	✓		✓	
Ø0.190	+0.005/-0.001	0.192"	✓		✓	
3.815	+/-0.010	3.817"	✓		✓	
16.100	+/-0.010	16.100"	✓		MT	H13-01

<b>Measured by:</b> JM	<b>Audited by:</b> S	<b>Preliminary Approval:</b>
<b>Date:</b> 12-6-1	<b>Date:</b> 12/6/04	<b>Date:</b>

Rev	Date	Change	Revised by	Approved
A	07.05.31	New Issue	KJ/JLM	
B	12.05.15	Dimensions updated per Dwg Rev C	KJ	

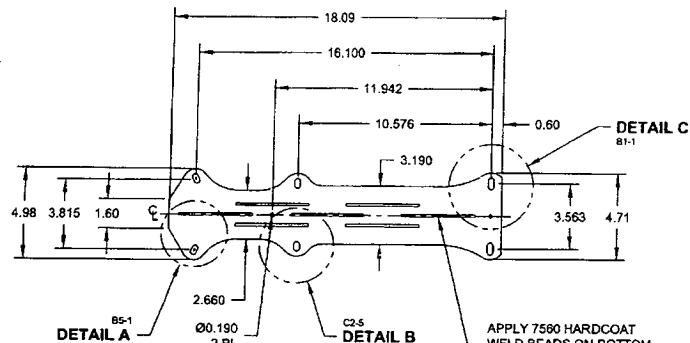
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Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

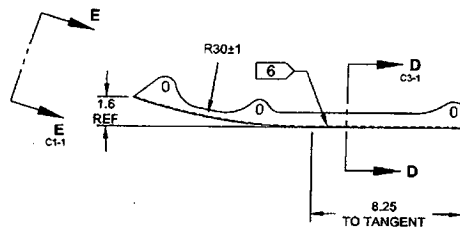
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			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

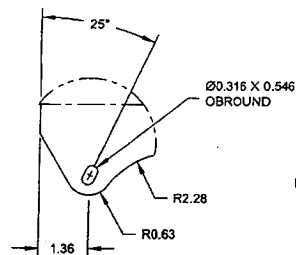
**NOTE:** Date & initial all entries



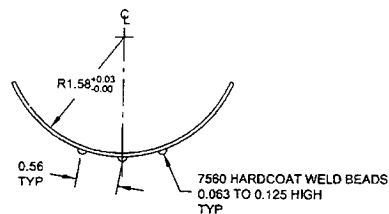
**D3319-1F FLAT PATTERN**



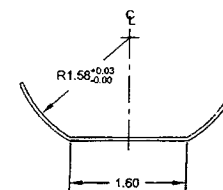
**D3319-1 BENDING DETAIL**  
MAKE FROM D3319-1F



**DETAIL A**  
SCALE 4X



**SECTION D-D**  
SCALE 4X



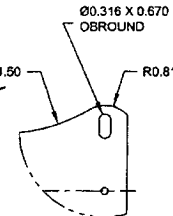
**SECTION E-E**  
SCALE 4X

SHOP COPY  
RETURN TO  
ENGINEERING  
UNCONTROLLED COPY  
SUBJECT TO AMENDMENT

WITHOUT NOTICE  
WORK ORDER

NO. 05026

12/05/31



**DETAIL C**  
SCALE 4X

**D3319-1 WEARPLATE**

**NOTES:**

- 1) MATERIAL: AISI 1010-1025 OR ASTM A36/A366/A1008 OR CSA G40-21, 38W/44W/50W/60W/70W SERIES STEEL 18 GAUGE (0.048 THICK) REF. DART SPEC. M1010-S18GA
- 2) FINISH: POWDER COAT GREY SANTEX (REF. 4.3.5.6) PER DART QSI 005 4.3
- 3) TOLERANCES: PER DART QSI 016 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: IDENTIFY ON INSIDE SURFACE WITH "TCCA-PDA, DART AEROSPACE LTD., P/N D3319-1 B/N BXXXXX, FOR PRODUCT ELIGIBILITY SEE PDA05-18" PER DART QSI 044 6.1 (FINE POINT PAINT MARKER)
- 7) WEIGHT: 0.90 lbs APPROX
- 8) SYMMETRY: ABOUT CENTERLINE

RELEASED  
2012-03-16  
PER ECN 12-546 12.03.16

C	UPDATE TO CURRENT STANDARDS IAW QSI 043; CLOSED AFT. MOST HOLE ON -3/5-7 (REF DETAIL G). SEE NCR12-547.	MB	12.03.13
B	WIDEN HOLES, REDUCE WIDTH ON -3/5-7	PH	05.06.06
A	NEW ISSUE	PH	04.09.24
REV.	DESCRIPTION	BY	DATE
DESIGN	PH	<b>DART AEROSPACE LTD</b> HAWKESBURY, ONTARIO, CANADA	
DRAWN		DRAWING NO.	REV. C
CHECKED		D3319	SHEET 1 OF 1
MFG. APPR.		TITLE	SCALE
APPROVED		WEARPLATE	NTS
DE APPR.		COPYRIGHT © 2004 BY DART AEROSPACE LTD	
DATE	12.03.13	THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.	

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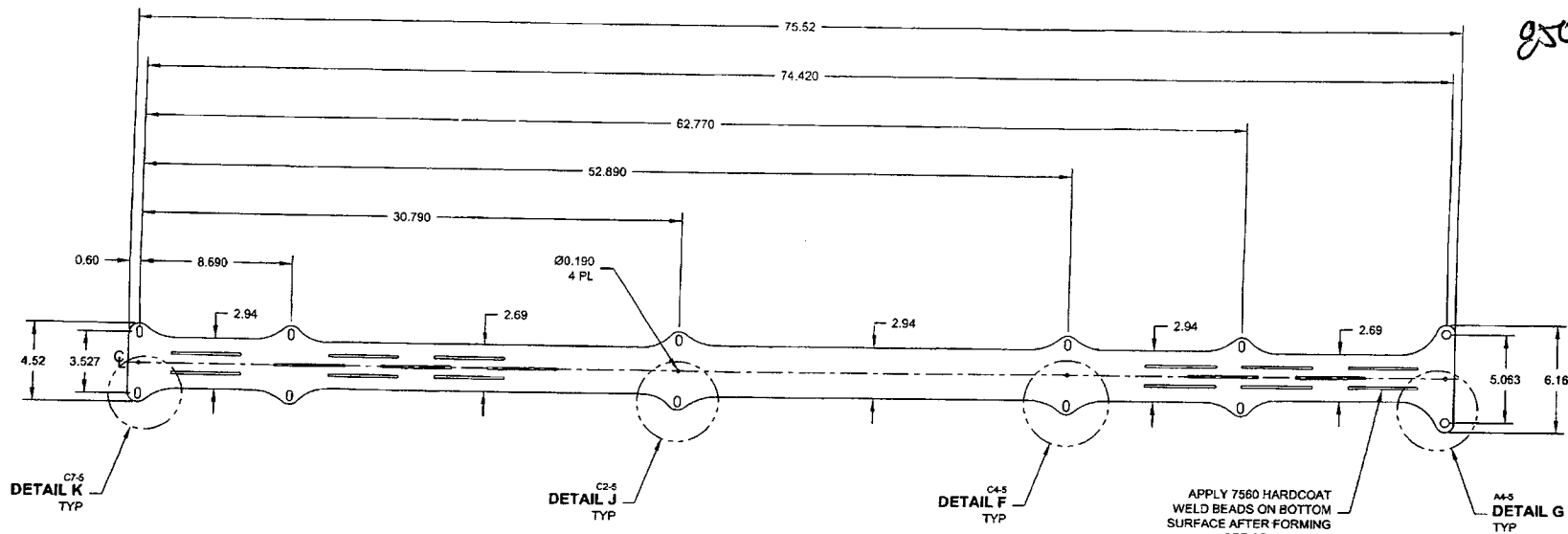
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Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

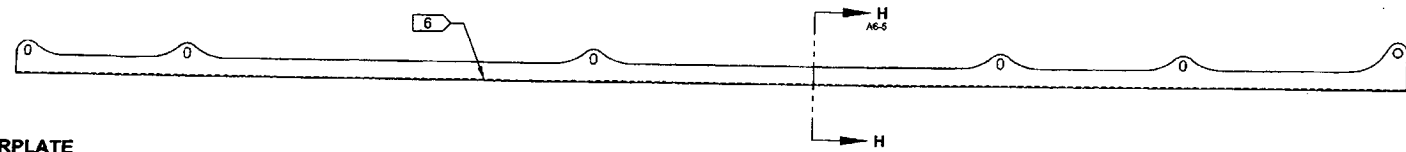
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			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries

85026



**D3319-3F FLAT PATTERN**



**D3319-3 WEARPLATE**

**D3319-3 BENDING DETAIL**  
MAKE FROM D3319-3F

**NOTES:**

- 1) MATERIAL: AISI 1010-1025 OR ASTM A36/A366/A1008 OR CSA G40-21, 38W/44W/50W/60W/70W SERIES STEEL 18 GAUGE (0.048 THICK) REF. DART SPEC. M1010-S18GA
- 2) FINISH: POWDER COAT GREY SANDEX (REF.4.3.5.6) PER DART QSI 005 4.3
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: IDENTIFY ON INSIDE SURFACE WITH "TCCA-PDA, DART AEROSPACE LTD., P/N D3319-3 B/N BXXXXX, FOR PRODUCT ELIGIBILITY SEE PDA05-18" PER R DART QSI 044 6.1 (FINE POINT PAINT MARKER)
- 7) WEIGHT: 3.25 lbs APPROX
- 8) SYMMETRY: ABOUT CENTERLINE

RELEASED  
2012 JUL 16  
912.0.16

DESIGN	PH	<b>DART AEROSPACE LTD</b>	
DRAWN		HAWKESBURY, ONTARIO, CANADA	
CHECKED	<i>[Signature]</i>	DRAWING NO.	REV. C
MFG. APPR.	<i>[Signature]</i>	D3319	SHEET 2 OF 4
APPROVED		TITLE	SCALE
DE APPR.	<i>[Signature]</i>	WEARPLATE	NTS
DATE	12.03.13	COPYRIGHT © 2004 BY DART AEROSPACE LTD	
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Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

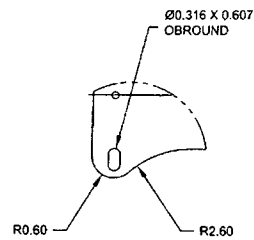
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			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

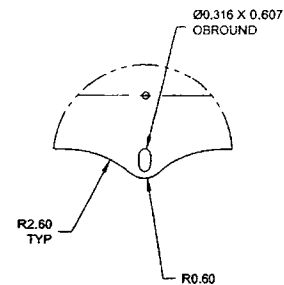
**NOTE:** Date & initial all entries



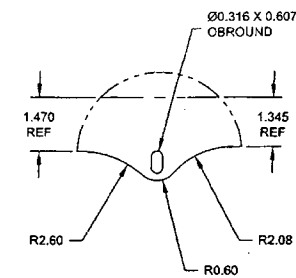
85026



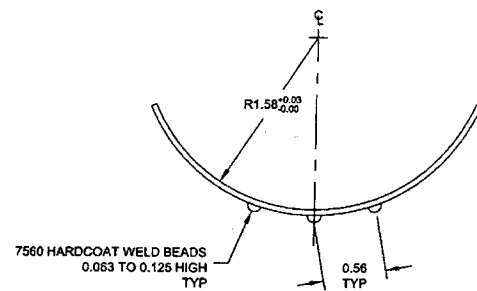
**DETAIL K**  
SCALE 2X  
B4-2  
C4-3  
C6-3



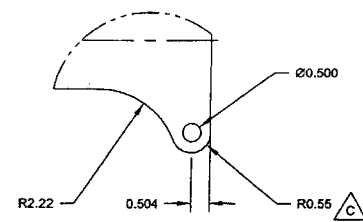
**DETAIL F**  
SCALE 2X  
B3-2



**DETAIL J**  
SCALE 2X  
B8-2  
C7-3






**SECTION H-H**  
SCALE 4X  
B4-2  
B3-3  
B6-3



**DETAIL G**  
SCALE 2X  
B4-2  
C2-3  
C6-3

RELEASED  
2012-02-16  
412.03.16

DESIGN	PH	<b>DART AEROSPACE LTD</b>	
DRAWN		HAWKESBURY, ONTARIO, CANADA	
CHECKED		DRAWING NO.	REV. C
MFG. APPR.		D3319	SHEET 4 OF 4
APPROVED		TITLE	SCALE
DE APPR.		WEARPLATE	NTS
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